

✓

L4 ANSWER 28 OF 52 CA COPYRIGHT 2003 ACS
AN 85:181302 CA
TI Inorganic **coating** compositions for metals
IN Ito, Hitoshi; Komatsuzawa, Toshiki
PA Kansai Paint Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC C09D001-00
CC 56-5 (Nonferrous Metals and Alloys)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 51079125	A2	19760709	JP 1975-908	19741230
	JP 57026542	B4	19820604		
PRAI	JP 1975-908		19741230		

AB Inorg. **coating** compns., giving water-resistant **coating** films on metal substrates, are prepd. from (1) colloidal SiO₂ dispersion, (2) water-sol. org. amine, (3) water-sol. amino acid, (4) thiourea, (5) .gtoreq.1 alkali metal or ammonium salts of chromic acid, molybdic acid, and tungstic acid, (6) Zn powder, and optionally (6) urea. The preferred amine/SiO₂ wt. ratio and Cr, Mo, or W in the metal salts/SiO₂ **mole ratio** are (1-2):(1-10) and 1:(50-5000), resp. Thus, 100 parts Snowtex-20 (colloidal SiO₂ dispersion) was mixed with monoethanolamine [141-43-5] 20 (based on SiO₂), glycine [56-40-6] 1 (based on water), thiourea [62-56-6] 5% (based on water), and K₂Cr₂O₇ in a Cr/SiO₂ **mole ratio** of 1:1000. The mixt. was dild. with water to adjust the solids content at 25%, and mixed with 30-fold (based on SiO₂ wt.) Zn powder to give an inorg. **coating** compn. The **coating** compn. was **coated** on a steel plate and dried at 20.degree. for 24 hr to give a water-, sea water-, and solvent-resistant **coating** film with pencil hardness 4H.

ST **zinc** waterproof **coating** steel; anticorrosive **coating** steel **zinc**; **silica** steel protective **coating**; dichromate **zinc coating** steel; ethanolamine **zinc coating** steel; glycine **zinc coating** steel; dichromate **zinc coating** steel
IT **Coating** materials
(**zinc** powder, **silica**, and amines for st